

# **HSE – SCIENCE DIVISION**

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# Agenda

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- Introduction to Science Division and HSL - Paul
- Data Quality – Oliver
- Data Sharing – Paul
- Questions & Discussion

# HSE Science Division

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- HSL is now known as HSE's Science Division
- Through cutting-edge research and testing, Science Division delivers the scientific evidence that informs HSE's health and safety policy and guidance.
- Our science also underpins commercial offerings that include world-class products, training, consultancy and solutions, benefitting both wider HSE and industry.

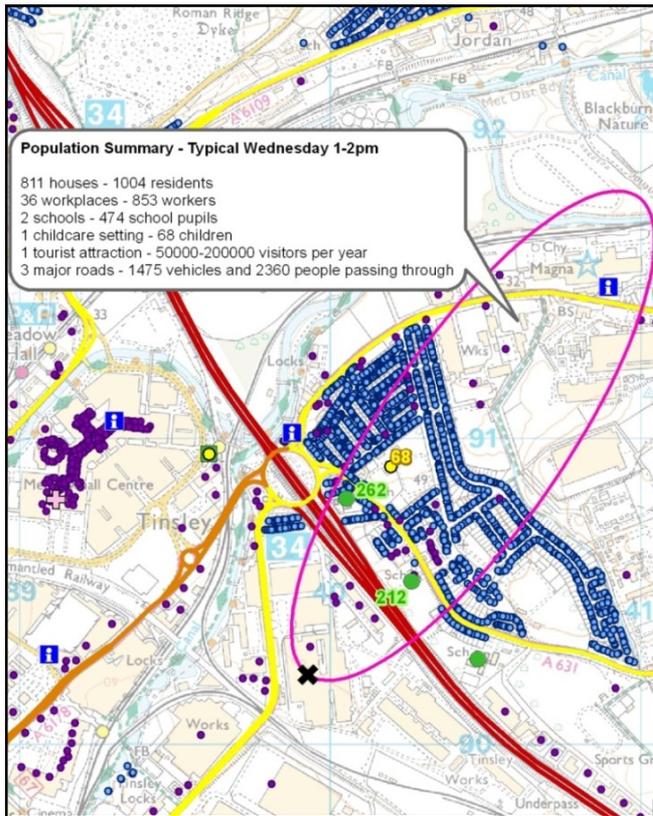
Oliver Gunawan

# **DATA QUALITY**

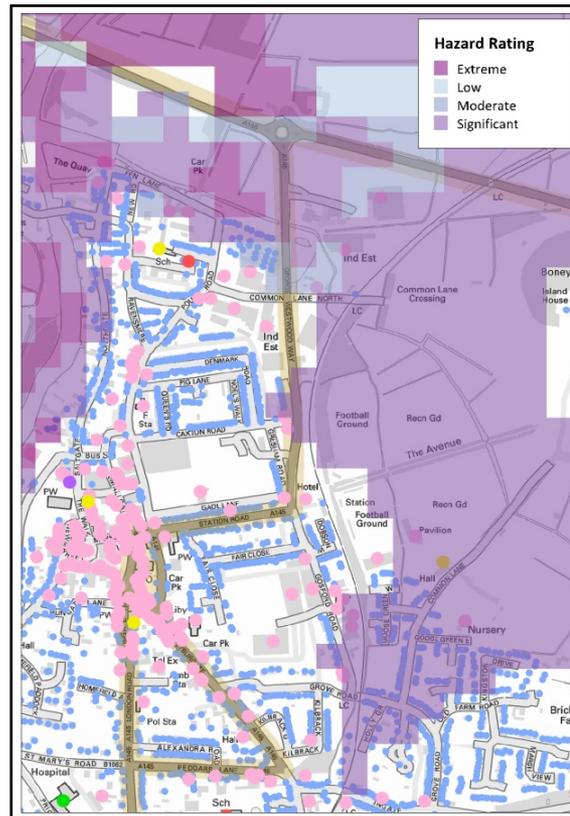
# Data Management and Spatial Analysis



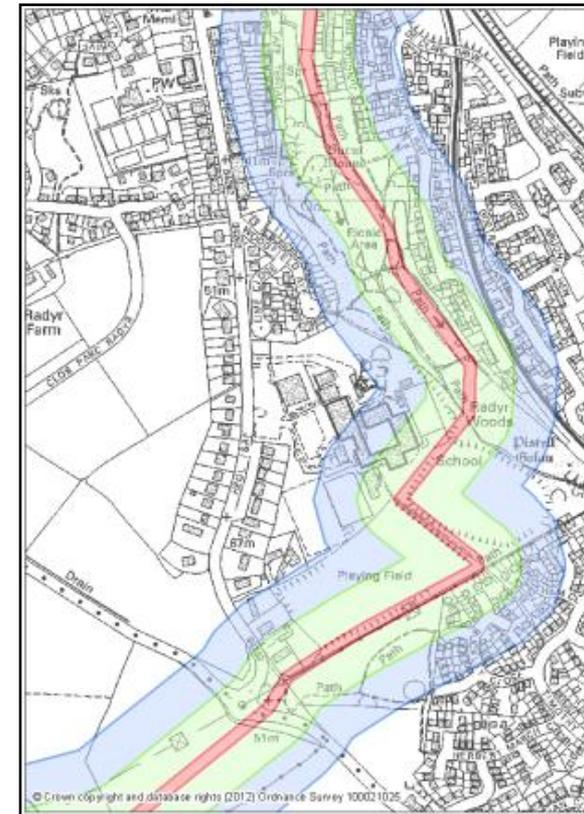
## Demographics



## Impact Modelling



## Land use planning

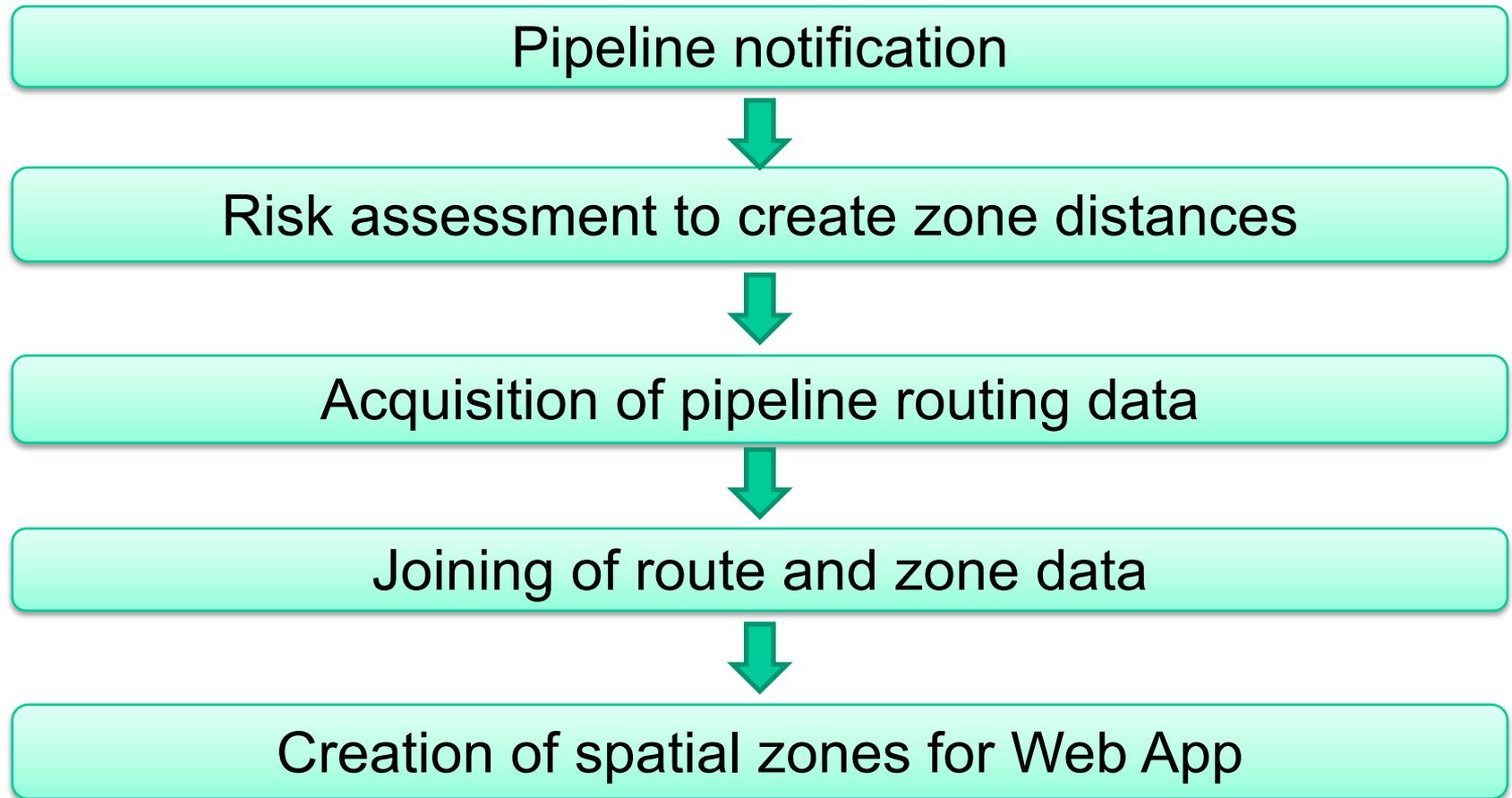


# DMSA role in land use planning

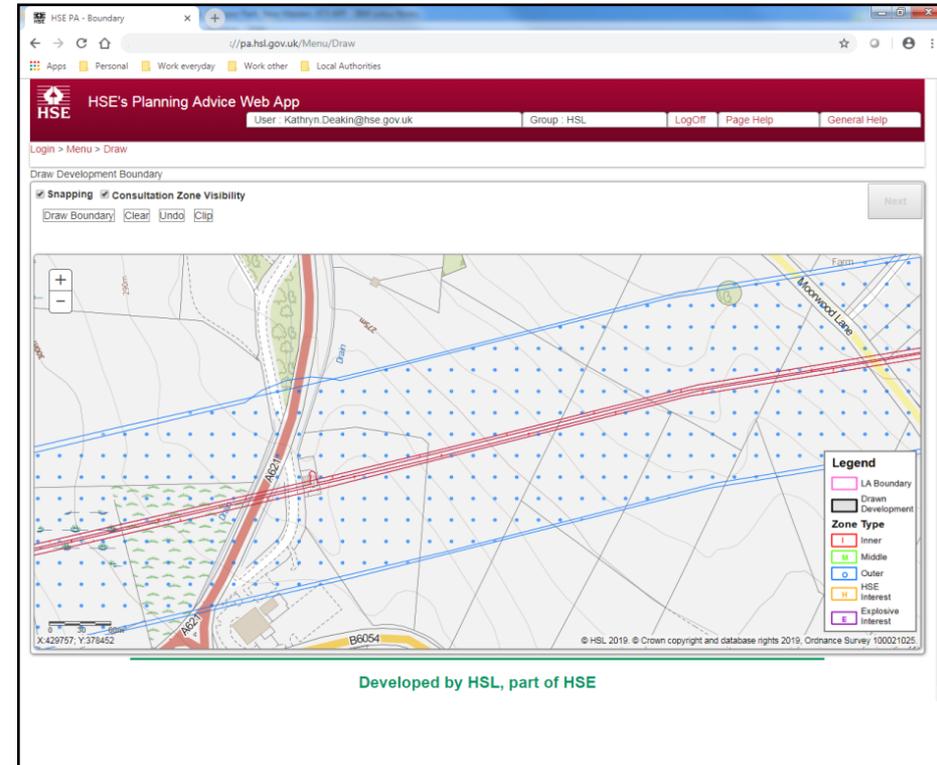
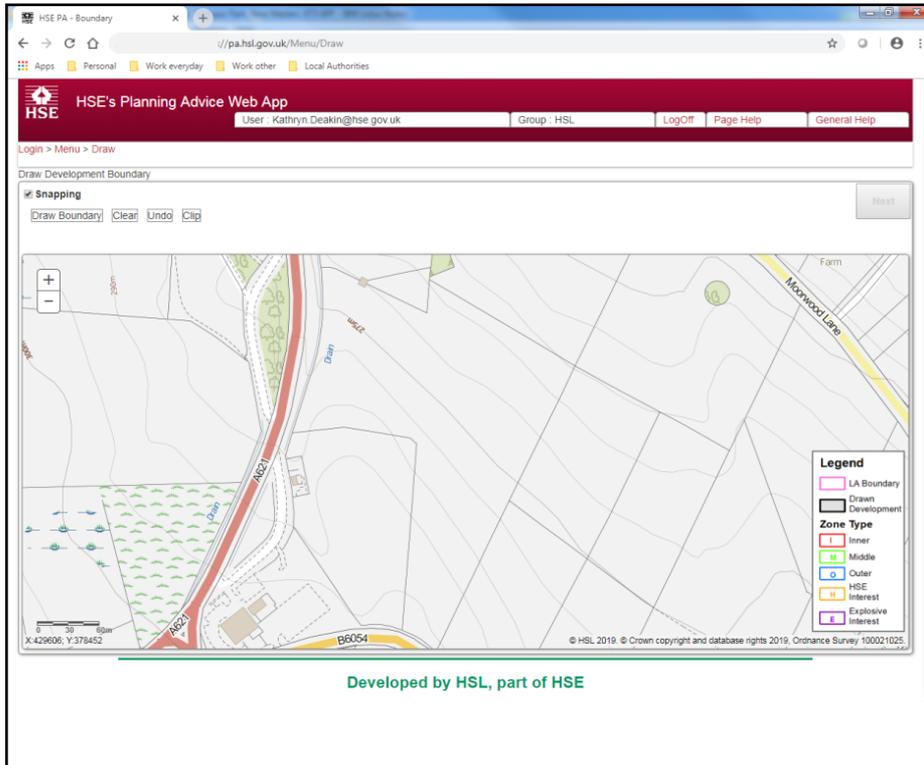
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- HSE is a statutory consultee for Land use Planning
- Preparing and maintaining spatial risk information around:
  - Major accident hazard sites (3,500 sites in GB)
  - Explosives sites (310 sites in GB)
  - Major accident hazard pipelines (over 28,000 km)
- Maintaining the Web App for Land Use Planning consultancy for Local Authorities and commercial developers

# DMSA role in land use planning



# HSE LUP Web App

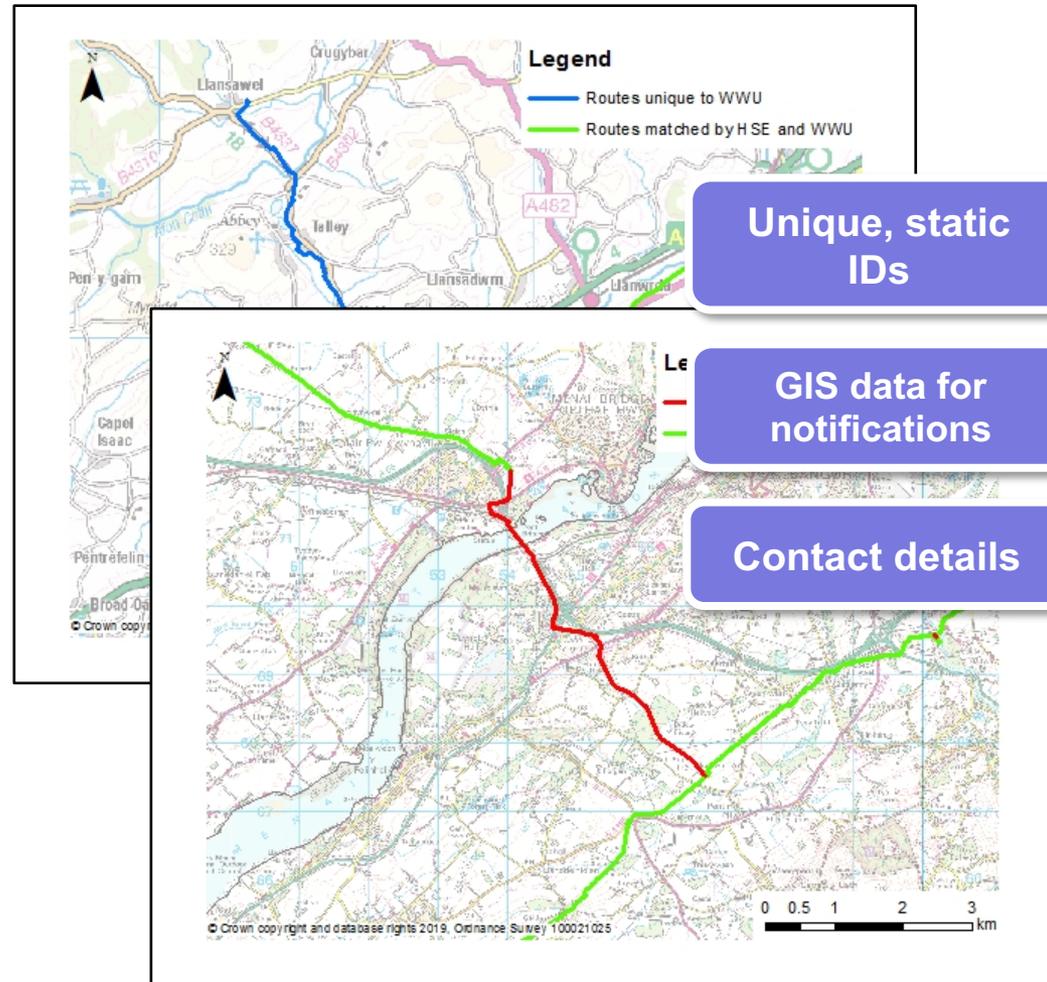


- Developer

- Local Authority

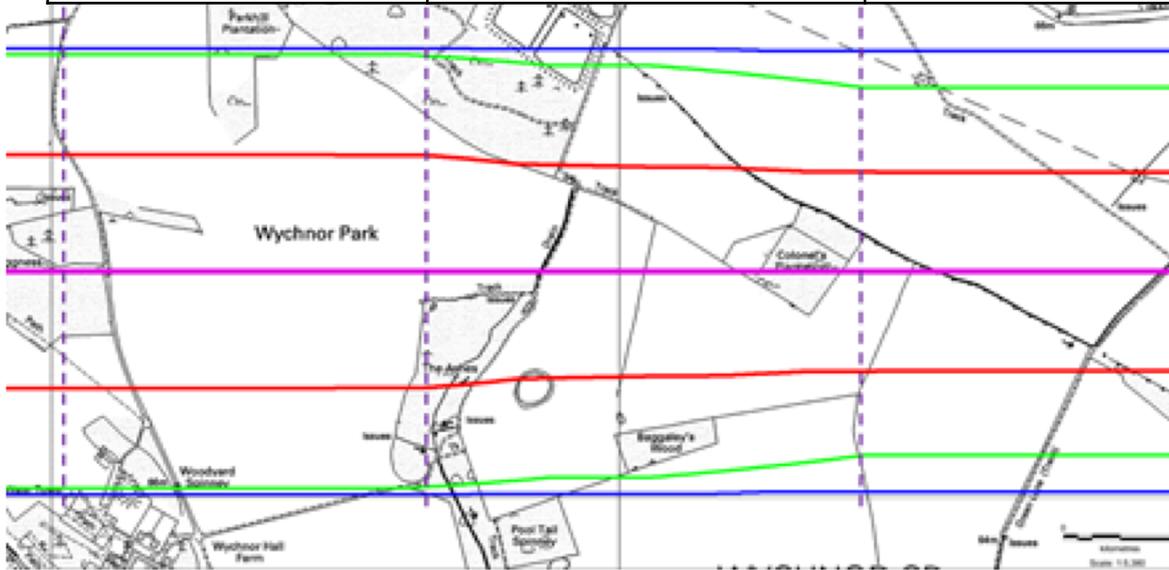
# Data updates

- HSE digitisation of pipeline routes means routes don't always match operator data
- Lack of unique ID reference makes pipeline identification difficult



# Data updates

7.50 mm	Notified Thickness (HSE database)	8.40 mm
8 mm	Rounded thickness	8 mm
69 m	Inner Zone	61 m
87 m	Middle Zone	70 m
92 m	Outer Zone	89 m



Unique, static IDs

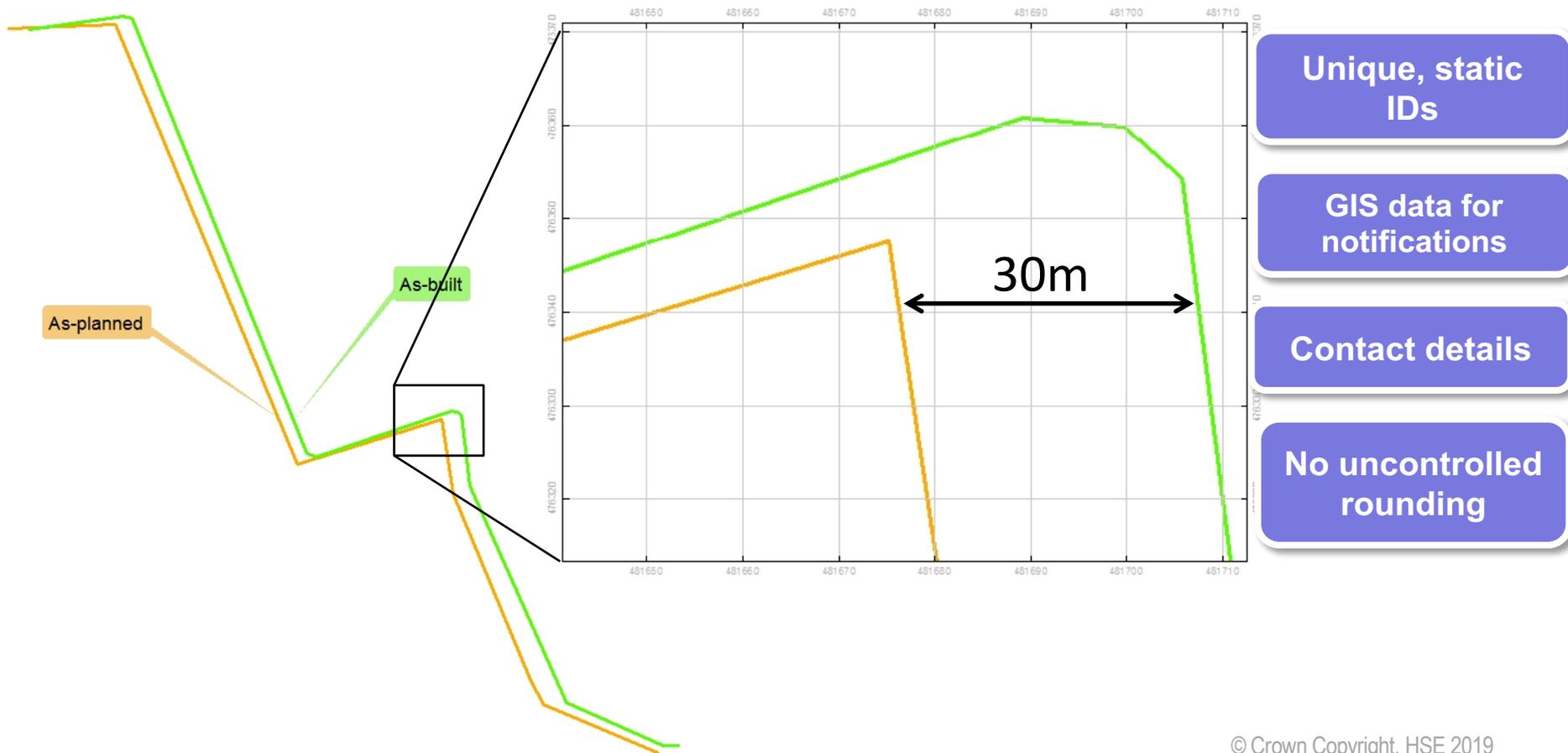
GIS data for notifications

Contact details

No uncontrolled rounding

# Data updates

- As-planned vs As-built



# Data requirements

Pipeline characteristic	Unit	Precision
Pipeline ID	-	-
Pipeline name	-	-
Start / end point	-	6 figure grid refs
Pipeline diameter	mm	1dp
Pipeline thickness	mm	2dp
Material code	-	-
Material grade	-	-
Operating pressure	barg	1dp
Pipeline length	km	1dp
Depth of cover	mm	-
Location (suburban or rural)	-	-
Slabbing (y or n)	-	-
Tape (y or n)	-	-
Substance	-	-

Pipeline routes	Specification
File type	.shp
Projection	(BNG, EPSG: 27700)
Data manager contact details	Name, email, phone number

- Annual data refresh
- Results shared with operator

Common schema

Unique, static IDs

GIS data for notifications

Contact details

No uncontrolled rounding

Formal QA process

## Summary

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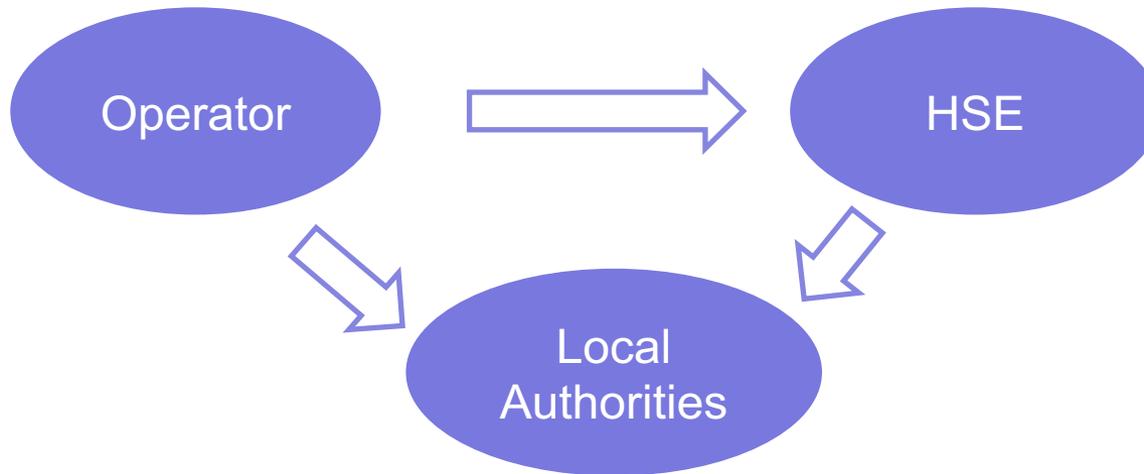
- Continued co-operation between UKOPA and HSE can improve data-sharing relationships.
- Improvements to data-sharing should lead to no future surprises with contents of annual data refreshes.

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Paul Bridges

# **DATA SHARING IDEAS**

# Current data sharing model



- Local Authorities may receive different versions of data
- Local Authorities may handle operator data differently to the HSE.
- Zones are likely to be different.

# HSE-UKOPA agreement

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1. Derivation of LUP zones to be incorporated in and distributed to web app users
2. Supply of pipeline routing data and pipeline attribute data to LA planning departments
3. Supply of pipeline location data to central Government Departments for emergency planning / civil contingencies
4. Supply of pipeline location data in response to requests from other Government Departments

# Data Sharing Service

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- Free at the point of use
- HSE costs covered by UKOPA
- Single definitive version of the data
- Shared from a single source
- Reduced duplication of efforts

# MAHP CD Zone Data Shapefiles



- HSE returning CD zone size data back to UKOPA members, based on the routing info we receive from you.
  - HSE takes a proportionate view on the data in the system which for pipelines that means a high level, 1<sup>st</sup> cut that the software base for the LUP supports.
  - This 1<sup>st</sup> cut is a conservative approach to the calculation of the zone sizes.
  - HSE then supports a more detailed view of specific applications to take into account local details of pipeline construction, location, contents etc.
  - As a consequence, HSE's preference is to share the outer zone data and to dive into the detail, only when necessary.

# MAHP Consolidated Shapefile

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- UKOPA members to get a consolidated shapefile with all CD zones.
- Will need consent to share data
  - Is this of value if it does not include all zones?
- Will be specific to geographic area of interest

# Non UKOPA Members

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- Wider stakeholders
  - Should the service give data for small areas to non UKOPA members?
  - Should the service generate shapefiles for large areas for non UKOPA members, for example a large water utility company or telecommunications company?

# GeoSpatial Commision

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- New part of the Cabinet Office
- Remit to:
  - understand data across Government and the wider private sector
  - Improve access and efficiency of access to data
  - Benefit to UK plc
- Want to develop an Underground Asset Register
  - National coverage
  - Down to 5m depth
  - Pilots in Greater London and Northumbria

# GeoSpatial Commision

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- They are looking for access to MAHP data to include in the Register
- Discussions are very early stage, but we intend to keep this progressing
- We have already highlighted security concerns which they empathise with
- Funding mechanisms are not clear yet, but they do have a budget

# Summary

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- Opportunity for developing a single “hub” for MAHP data to improve efficiency of communication
- Need the data sharing agreements signed
- Need to agree how to issue MAHP data and to who
- GeoSpatial Commission could be a route for service delivery

- Questions?